Helvar

simple to install ● easy to operate ● very flexible ● creates the perfect mood

digidim

The complete **lighting control** Solution

Lighting the way forward

Who are Helvar?...

Helvar develops, manufactures, and markets ballasts and lighting electronics for the luminaire industry and other customers specialising in lighting. Helvar has a long tradition as a forerunner in its field, and always utilises the latest technology to ensure that its products are of high quality, have first-class technical properties and conform to local regulations.

Helvar focuses on controllable and non-controllable electronic ballasts, lighting control products and magnetic ballasts, thus offering its customers a tailored products and solution portfolio.

Helvar has its headquarters and ballast competence centre in Karkkila, Finland. The lighting control system competence centre is located in London, England. Helvar has it's own sales offices and representatives all over the world.

Creating a Scene...

a boardroom presentation. . .

an intimate dinner at your favourite restaurant. . .

checking-in at your hotel's reception desk. . .

an office meeting. . .

All these activities require different lighting levels to create an appropriate mood. Helvar's DIGIDIM range gives you the products to fulfil any lighting control requirement.

From a single office to a cruise liner; a living room or a hotel reception; DIGIDIM products are - lighting the way forward

System Key Features

- Dimmers and output units to suit any load type.

- Flexible design with DIN rail mounted modules.

- No special cables required.

- Cost effective with easy installation.

- Control panels available in a wide range of finishes.

- Infrared receiver on all control panels.

- Control panels fit into a standard UK and most European backboxes.

- Customised control panels and finishes available to order.

- UK designed & manufactured.

- All dimmers are voltage and frequency output stabilised.

- Thermal cut-out protection on all dimmers in the event of overheating.

Thomson Holidays,
Head Office boardroom - London

Giorgio Armani store - Milano

Keeping it simple

DIGIDIM 4 is a single room solution for up to four lighting circuits, suitable for tungsten, tungsten halogen, wirewound fed low voltage tungsten or neon loads. An idea solution for small restaurants, bars, cafes and even single rooms in modern houses. Additional control panels can be installed in rooms with multiple entry points.

Benefits

Dimmer, control panel and remote control all supplied in a single boxed solution

Control panels available in a choice of modern decorative finishes

No special cabling requirements

Pre-programmed to function as soon as installed

The Complete Solution

The DIGIDIM4 package contains a four circuit dimmer; a four scene, raise, lower and on/off control panel; and an infrared remote controller. Scene selection is achieved via push buttons on the control panel or from the comfort of your armchair using the handset. The system leaves the factory with default settings to allow instant operation once installation is complete.

Dimmable Load Outputs

Capable of dimming most common load types including tungsten, mains voltage tungsten halogen and transformer fed low voltage tungsten halogen (provided transformer manufacturer approves use with thyristor, leading edge, dimmers).

The Dimmer Unit

A compact four channel dimmer suitable for installation in any convenient location.

The dimmer is fitted with overheat protection, status indication and an override input

Infrared Handset

A small hand held remote control provides the same functionality as the pushbutton panel.

Pushbutton Panel

Allows simple programming and selection of scenes. Up to five panels maybe connected, ideal for rooms with multiple entry points.

Keeping it simple

For multi-room applications the DIGIDIM range offers the ultimate in flexibility. Dimmers, output units, contactors and input units can all be incorporated to suit the customer's requirements. Control can be via pushbutton, sliders or rotary control panels. All control panels can be customised to suit individual requirements or special customer needs.
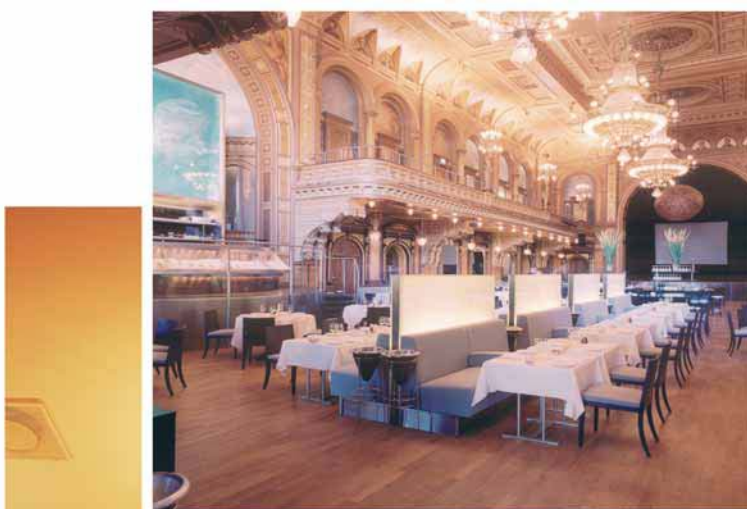
Benefits

A totally flexible solution

Configured to specific customer needs

Cost effective Solution

Fully assembled and tested prior to installation at customers premises

TouchPanel

A full colour, 3.5" high resolution touch screen providing users with a wide range of easily selectable button combinations and functions..
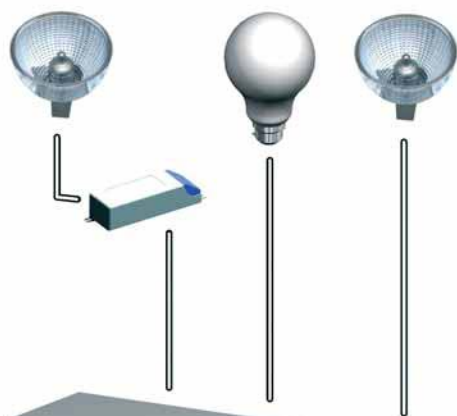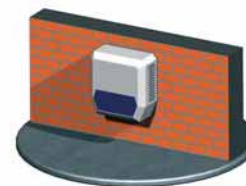
Universal IR Handset

Can be programmed to control lighting circuits in addition to audio and video equipment removing the need for multiple remote controls. Particularly useful in home theatre applications.
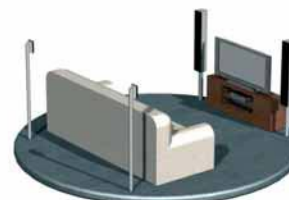
Dimmable Load Outputs

Unit can be fitted with modules suitable for all load types including non-dimmable circuits such as curtain controllers.
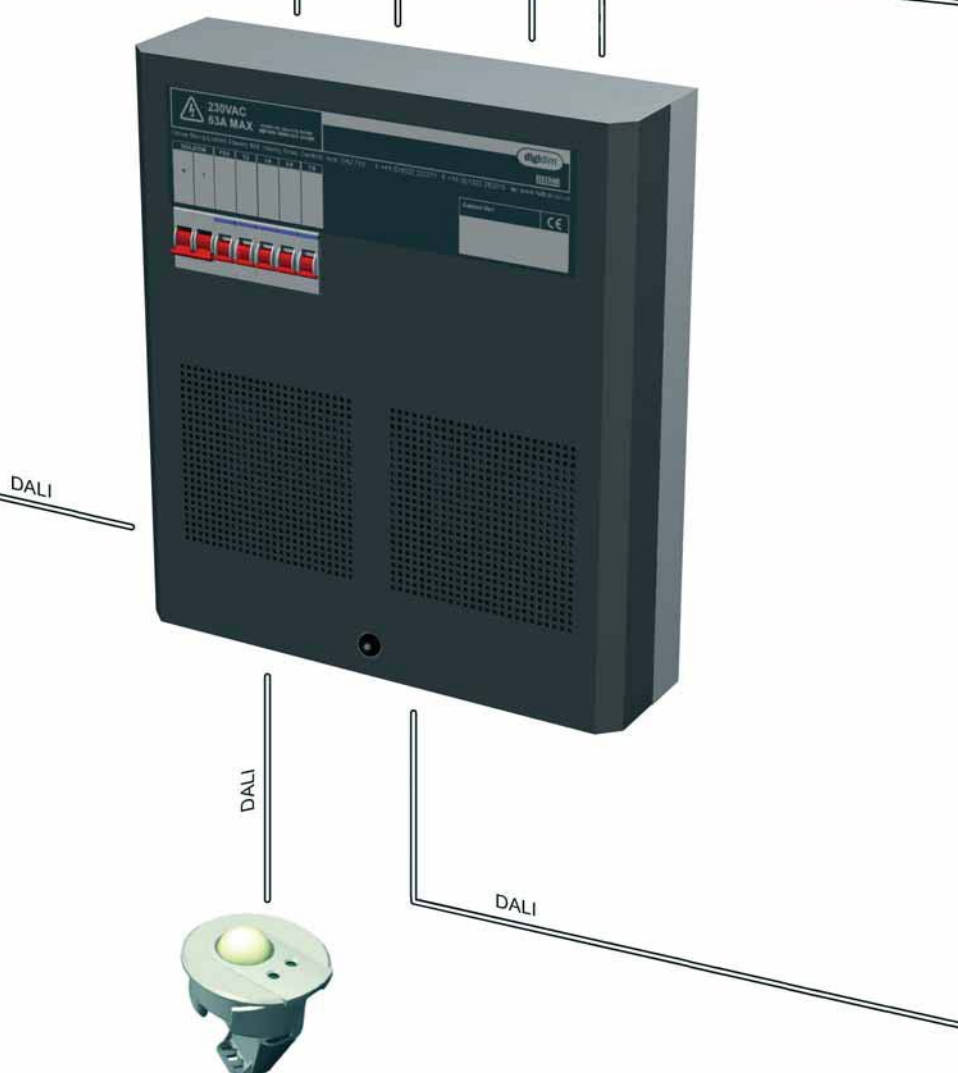
Automatic gate control

Security Alarms

AV System Integration

DALI

DALI

DALI

Modular Enclosure

A cost-effective enclosure for the required modules, circuit breakers and cable terminations.

Multi-sensor

Useful for presence detection and/or constant light control in situations where energy efficiency is a requirement.

Pushbutton Panel

Allows simple programming and selection of scenes. Up to five panels may be connected, ideal for rooms with multiple entry points.

Keeping it simple

Using modules from the DIGIDIM range a system can be designed to enhance any office environment, increasing personal comfort and productivity. Control panels allow manual selection of pre-programmed scenes for different office tasks. Using a multi-sensor a constant light level can be maintained and when combined with presence detection the office becomes more energy efficient.
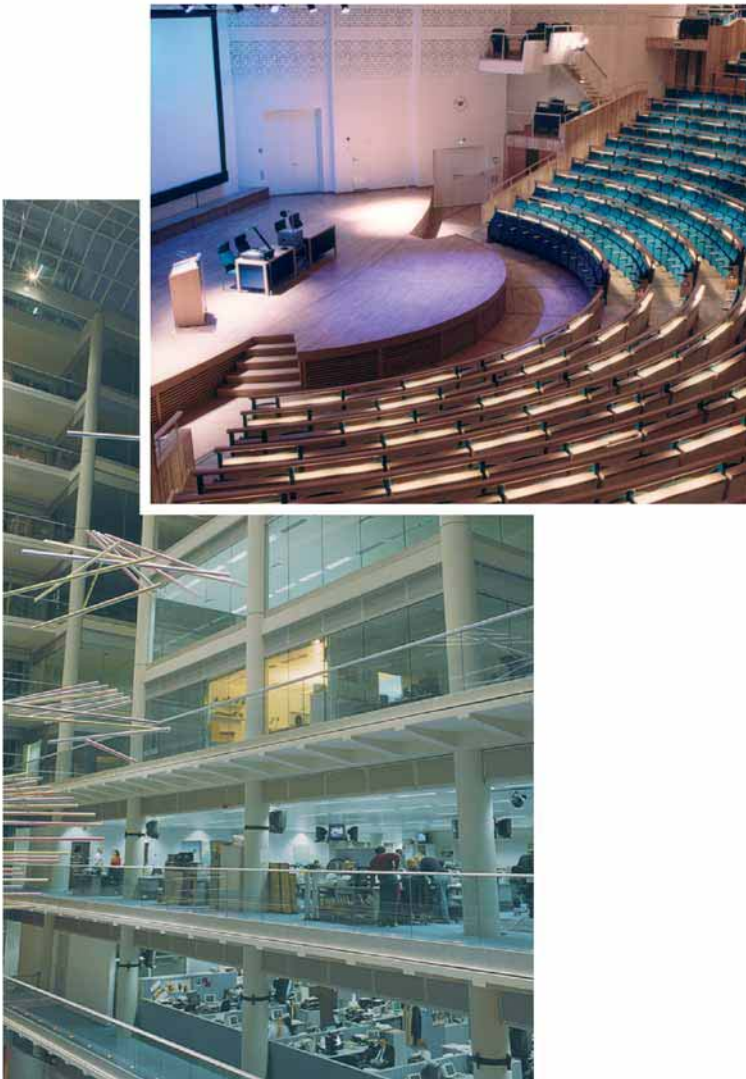
Benefits

Selectable light levels for different tasks

Increased energy efficiency

Improved personal comfort and productivity

Easily reprogrammed to suit changing workplace requirements

Digital DALI Ballast

A high frequency ballast conforming to the DALI standard providing smooth step-less dimming from 1% to 100% with in-built intelligence that communicates light level, lamp and ballast condition to the control system.
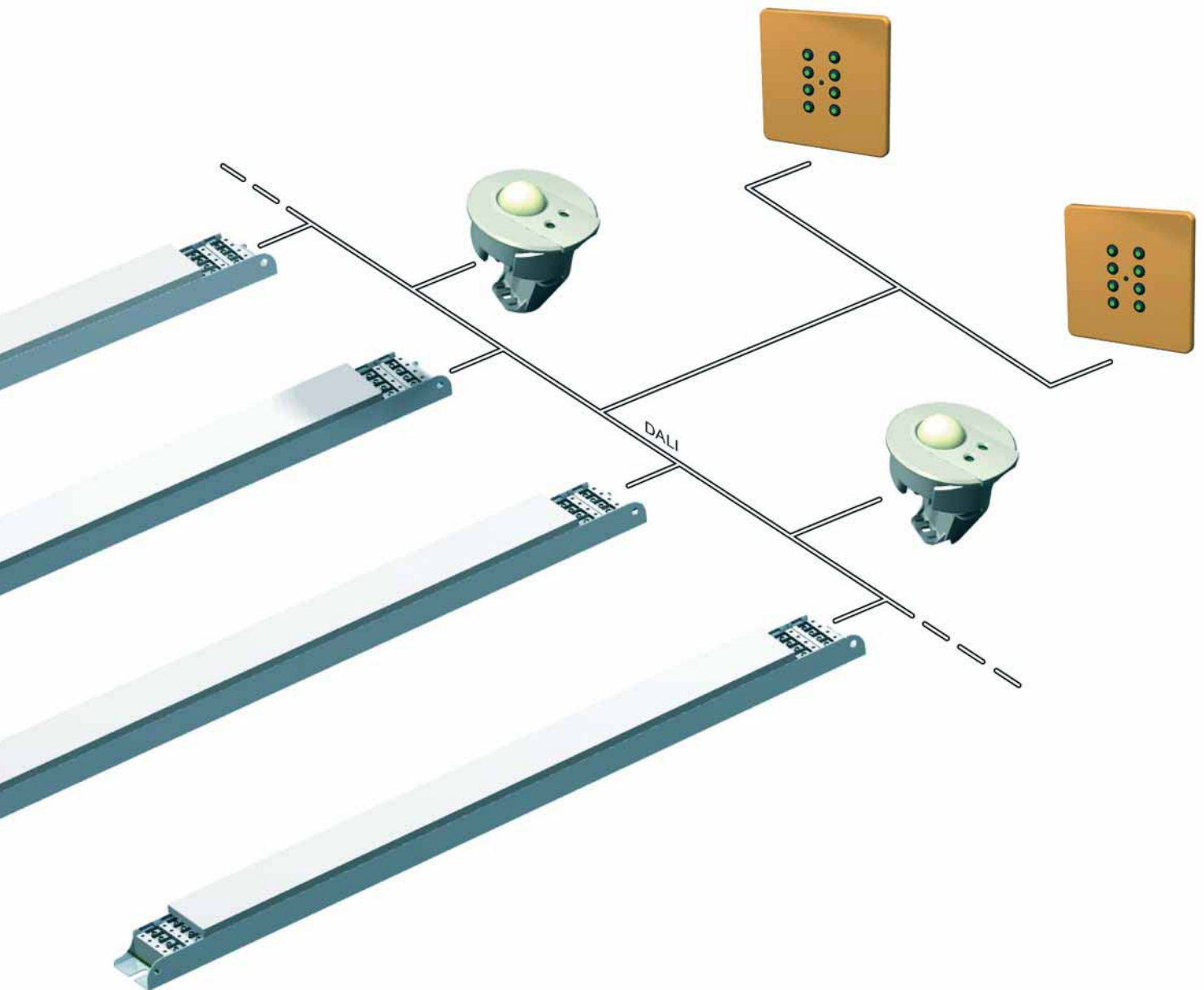
Infrared Handset

A small hand held remote control provides the same functionality as the pushbutton panel with the added ability of scene modification.

Pushbutton Panel

A wall mounted control panel supplied in a range of button combinations from two to eight buttons; all units are fitted with an infrared receiver.

DALI

Multi-sensor Unit

Ideal for automatic control of lighting by using the in-built presence and constant light detectors. Multiple sensors can be set in a co-operative mode for use in large open plan offices.

Keeping it simple

For a professional audio-visual installation a DIGIDIM solution can integrate all elements of the system. Lighting, projectors and curtains can all be simultaneously controlled at the touch of a button maximising the overall effect on the audience.
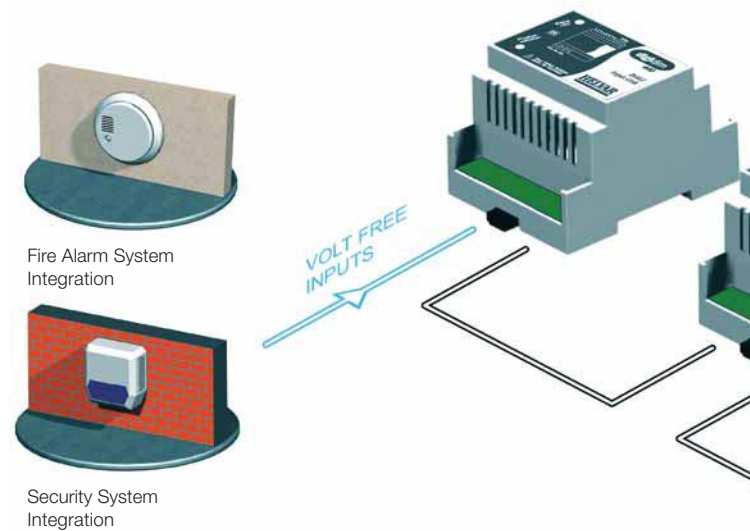
Benefits

Professional integrated presentations
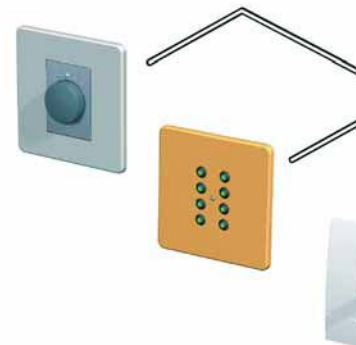
Room configuration can be changed at the touch of a button

Single or multiple points of control

Easy integration of touch screen panels for the ultimate in sophistication
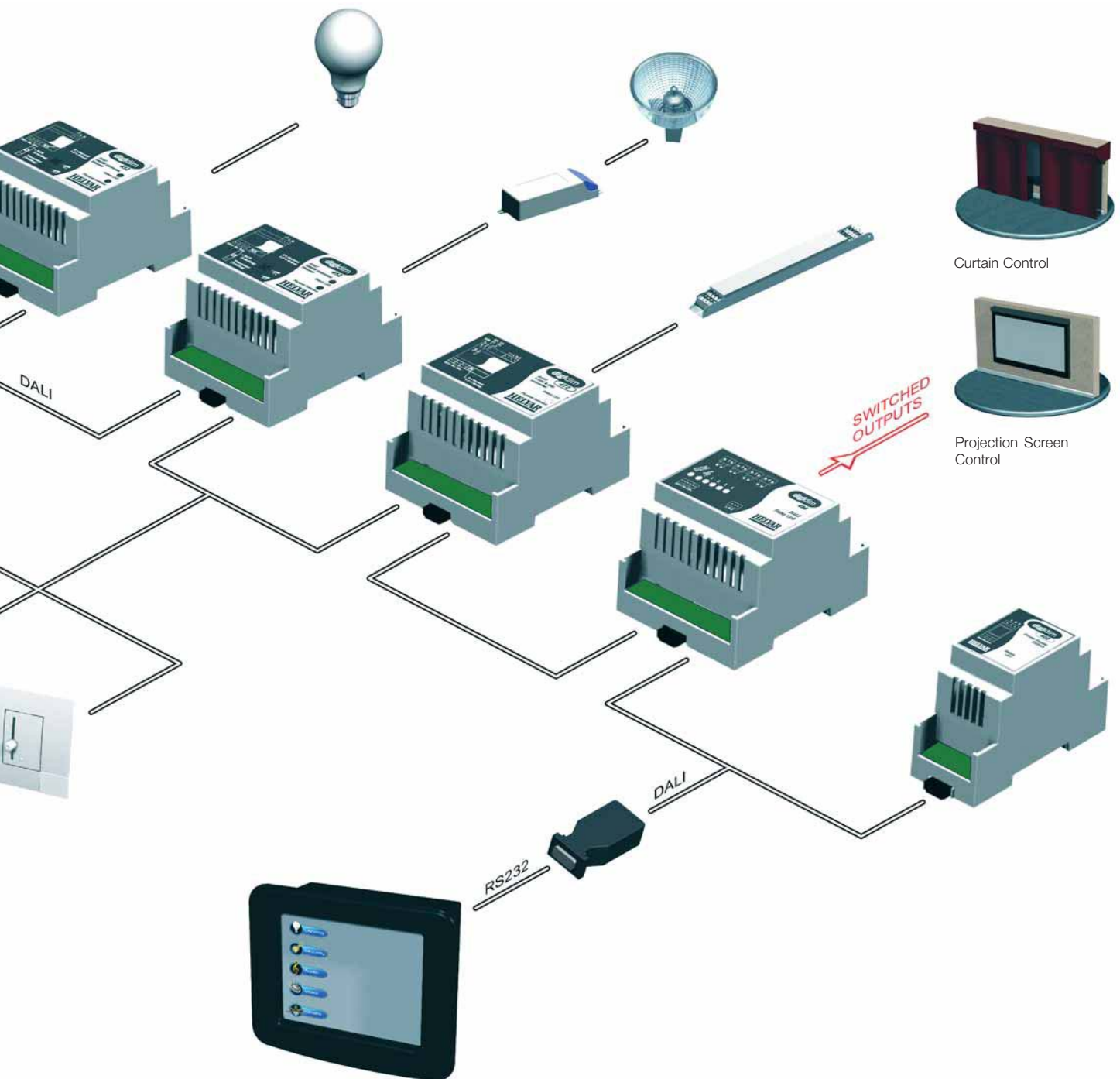
Fire Alarm System Integration

VOLT FREE INPUTS

Security System Integration

Modular Panels

A modular range of control panels comprising of pushbutton, rotary or slider combinations in a range of finishes.

Dimmable Load Outputs

DALI

SWITCHED OUTPUTS

Curtain Control

Projection Screen Control

RS232

DALI

AV Interface

The AV Interface facilitates full integration of touch screen panels provided by third party manufacturers such as AMX and Crestron. This gives full integration of lighting, sound, vision and other room controls onto one convenient touch screen.

DIGIDIM Modules

(From left to right)

Input Unit

1kW Dimmer

1kW Dimmer

1-10V/DSI Converter

Relay Unit

Power Supply

TouchPanel 924

The TouchPanel is a touch sensitive full color LCD screen that can be used for controlling and programming a Helvar lighting control system.

The LCD TouchPanel offers Helvar's renowned build quality combined with cutting-edge design flair. Key criteria for the consumer market such as ease-of-use and installation have been fully incorporated. With a full color 3.5" high resolution touch screen the TouchPanel also offers first-class display quality combined with attractive looks that further boost the panels appeal. A range of fascia plate finishes are available to suit any modern décor style.

Compatible with Helvar's DIGIDIM and IMAGINE systems, the TouchPanel can be configured easily to meet individual customer lighting control requirements.

Key Features

A full color 3.5", high resolution touch screen providing users with a wide range of easily selectable button combinations and functions. (Maximum Viewing angle approx: 100 Degrees)

Easy to use library of button designs and background images.

Capable of controlling and programming DIGIDIM and IMAGINE lighting control systems.

Timed events may be programmed and scheduled using the built-in real time clock.

An integral infrared receiver for use with a hand held remote.

Panel editing is password protected to prevent unauthorized changes to configuration.

Double gang, 46 mm deep back box supplied.

Fascia plates available in a range of standard finishes to suit any modern décor style.

* Requires a 14-50 V DC power supply, DIGIDIM 401 or 402 power supply recommended.

Panel Finishes

Fascia plates available in a range of standard finishes to suit any modern décor style.
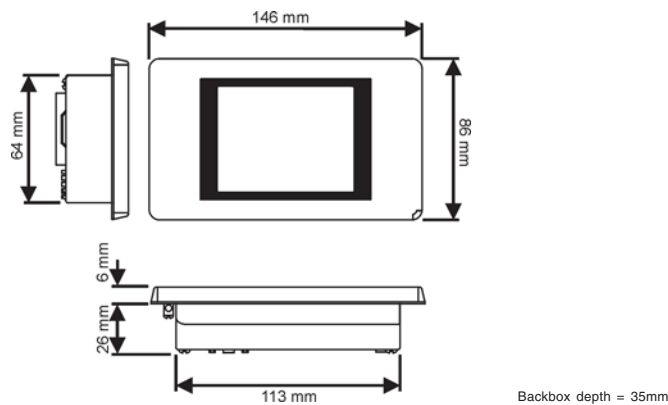

Satin White (9240)

Polished Brass (9241)

Stainless Steel (9242)

Panel Dimensions (mm)

146 mm
64 mm
86 mm
6 mm
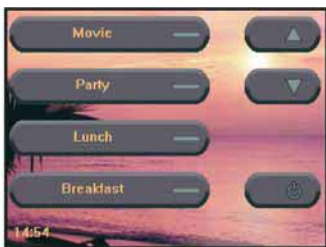26 mm
113 mm

Backbox depth = 35mm

Built in themes

A Theme is a combination of Button and Background styles which produce 5 separate individual looks for the panel.

The TouchPanel is supplied with a color picker allowing up to 65,000 different solid color backgrounds, However there is also an additional 5 built-in themes as standard allowing the look of the panel to be tailored to the surroundings or to a specific task.

The default theme for the panel is "Space" and the other selections are shown below but it is possible to mix & match button and background styles to create your own themes.
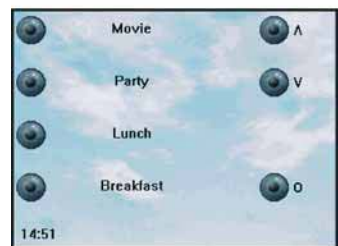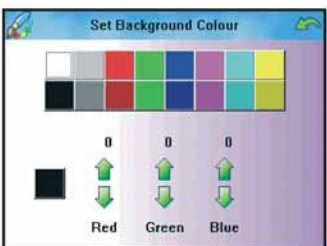

Space (Default)

Beach Sunset

Aquarium

Cloudy Sky

Winter Scene

Colour Picker (65,000 colours available)

TouchPanel Scheduler

The TouchPanel Scheduler allows automation of the lighting by triggering scenes or linking to screens at regular daily or weekly intervals. The TouchPanel can even schedule events relative to dawn and dusk. This is particularly useful for security purposes allowing events to occur at specific times of the day and night even when you are on holiday.

Back-up & Restore via USB

The latest release of TouchPanel allows all of its settings to be backed up and restored, including copying of settings from one TouchPanel to another.

TouchPanel Backlight

The TouchPanel screen is backlit so that it can be seen in low lighting conditions, however it is possible to set the backlight to time out and dim when not in use. (This time out can be set from 10 up to 180 seconds)

If dimmed the backlight will brighten when the screen is touched, or when a command is received from the remote control.

Set Time & Date

During the TouchPanel power-up both the time and date must be entered. Both time and date are required for triggering timed events which are programmed using Touchpanels onboard scheduler. The time can be displayed on any of the screens in a digital format and is updated every minute.

Button Text Editor

The TouchPanel buttons are pre-named but these can be edited to suit user requirements. The fully functioning qwerty and numeric keyboard permits upper and lower case text entry. Buttons can be resized to suit the length of the entered text.

Modular Control Panels

Single Gang Panels

The Modular control panels are a fully DALI compatible range of user interfaces that allow basic control of the system. The range includes pushbutton, rotary and slider controls in a range of panel finishes. Each panel is fitted with an indicator LED and an infrared receiver that gives the option of remote operation using the DIGIDIM hand held remote (303).

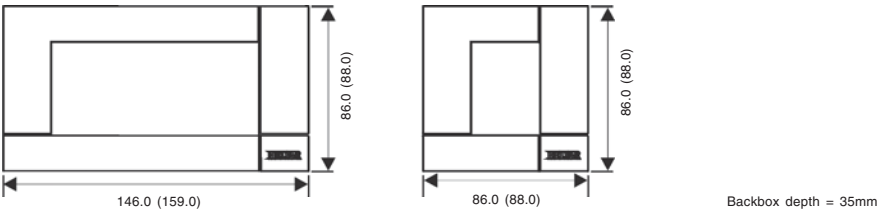Control panels fit into standard UK and most European backboxes.

Double Gang Panels

The double gang panel options contain up to any three control module combinations.

They are available as standard in Satin White Plastic or Satin Stainless Steel + Grey. The panels are also available to special order in Lacquered Polished Brass or Satin Stainless Steel.

Please see the Modular Panel data sheet for further details of the available panel configurations.

Panel Dimensions (mm)
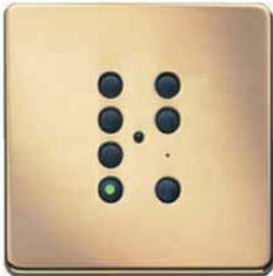
() = *Metal Finish Panel Dimensions*

146.0 (159.0)
86.0 (88.0)
86.0 (88.0)
86.0 (88.0)

Backbox depth = 35mm

Satin White

Polished Brass

Stainless Steel

Stainless Steel & Grey Insert

Panel order codes

	ROTARY	SINGLE SLIDER	DOUBLE SLIDER	2 BUTTON (ON/OFF)	2 BUTTON (UP/DOWN)
SATIN WHITE	100 200	110 200	111 200	121 200	122 200
BRASS	100 201	110 201	111 201	121 201	122 201
STAINLESS STEEL	100 202	110 202	111 202	121 202	122 202
GREY INSERT	100 203	110 203	111 203	121 203	122 203

	5 BUTTON	7 BUTTON	8 BUTTON	IR	PROGRAMME POINT
SATIN WHITE	124 200	125 200	126 200	170 200	180 200
BRASS	124 201	125 201	126 201	170 201	180 201
STAINLESS STEEL	124 202	125 202	126 202	170 202	180 202
GREY INSERT	124 203	125 203	126 203	170 203	180 203

Remote Control (303)

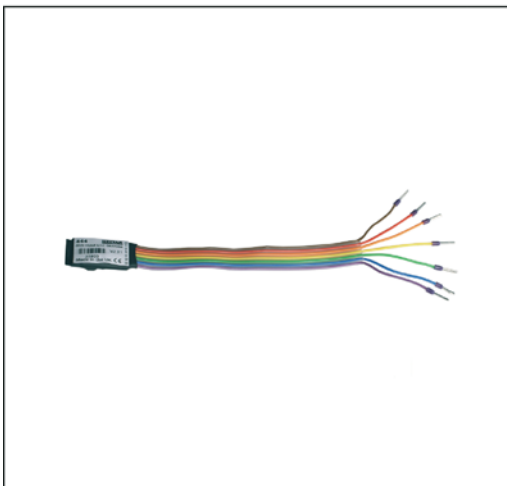The remote control is designed to operate basic system functions. The remote has the following functions:

On/off button

Raise (modifier button)

Lower (modifier button)

Four scene recall buttons

Multi-sensor (312)

The Multi-sensor module contains the required sensors to provide the energy saving benefits of an automated lighting control system; a passive infra-red presence detector and infra-red remote control receiver.

PIR Detector	Omni-directional
External Diameter	65.00mm
Fixing Aperture	52.00mm for 0.5 2.0mm tile 55.00mm for >2.0mm tile

Mini Input Unit (444)

Allows the connection of customer specified switches (latching or momentary), time clocks or other on/off control devices to be incorporated into a Digidim system.

No of Input Channels	4
Cable Length	200mm
Product Dimensions	30mm x 20mm x 10mm

Note: Cable length must not be increased.

Input Unit (440)

Allows the connection of customer specified switches (latching or momentary), time clocks or other on/off control devices to be incorporated into a Digidim system.

No of input channels	8
Cable length	50m (max)
Product Dimensions	90mm x 71mm x 58mm

Digidim4 (8040/1/2/3)

DIGIDIM 4 consists of a four-circuit 10 Amp dimmer unit, a pushbutton control panel and an infra-remote control in a single package. The pushbutton control panel comes with an optional choice of finishes; satin white plastic, polished brass, brushed stainless steel or brushed stainless steel & grey insert.

Supply Voltage	197-264VAC
Supply Frequency	48-62Hz
Maximum Load	10A
No of Channels	4

16A Digital Dimmer (416)

Single channel thyristor dimmer (leading edge) suitable for tungsten, tungsten halogen, wirewound (inductive) fed low voltage tungsten or neon loads.

Supply Voltage	180-264VAC
Supply Frequency	48-52 or 58-62Hz
Maximum Load	16A
Output Relay	Single pole 16A
Product Dimensions	274mm x 200mm x 72mm

25A Digital Dimmer (425)

Single channel thyristor dimmer (leading edge) suitable for tungsten, tungsten halogen, wirewound (inductive) fed low voltage tungsten or neon lighting loads.

Supply Voltage	180-264VAC
Supply Frequency	48-52 or 58-62Hz
Maximum Load	25A
Output Relay	Single pole 25A
Product Dimensions	274mm x 200mm x 72mm

Solutions Cabinet (603/606)

Using our in-house project engineering team we have developed a range of **DALI Standard Solutions,** which enable us to offer a complete packaged solution to all your DALI requirements.

This just leaves you to fit the cabinet to the wall and make the necessary control and load connections.

Dimensions:

603: 450mm x 402mm x 115mm (H,W,D)

606: 795mm x 402mm x 115mm (H,W,D)

1kW Universal Dimmer (452)

Single channel universal dimmer suitable for any type of load by selecting the appropriate operating mode (leading or trailing edge).

Supply Voltage	90-264VAC
Supply Frequency	48-62Hz
Maximum Load	1000W
Product Dimensions	90mm x 70mm x 58mm

1-10V/DSI Converter (472)

DALI to 1-10V and DSI converter suitable for controlling electronic ballasts thus enabling a DIGIDIM system to operate and to integrate into analogue or DSI systems.

Supply Voltage	90-264VAC
Supply Frequency	48-62Hz
Output Relay Rating	Single pole 10A resistive load (max15 HFC ballasts)
Product Dimensions	90mm x 70mm x 58mm

Blinds Controller (490)

Provides 2 independent control channels each with two single pole, volt free contacts for switching up/down or power/direction motors from a DIGIDIM system. Each channel has a programmable "blind travel time" which is set using Toolbox software.

No of Control Channels	2
Each Channel comprises	2 x Single pole, single throw, normally open
Supply Voltage	197-264VAC
Supply Frequency	48-62Hz
Max Motor Load	550Wper contact
Product Dimensions	90mm x 88mm x 58mm

Relay Unit (494)

Provides 4 independent single pole, volt free contacts for switching external devices from a DIGIDIM system.

No of Output Channels	4 single pole, normally open
Supply Voltage	197-264VAC (absolute)
Supply Frequency	48-62Hz
Output Relay Rating	10A resistive / 5A inductive
Product Dimensions	90mm x 88mm x 58mm

SDIM Converter (460)

Each DALI-SDIM converter allows up to 16 channels of Ambience™ or Imagine™ dimmers, output units or relay units to be connected to a DALI system. This gives dimming capacities of up to 40A per channel.

Supply Voltage	197-264VAC
Supply Frequency	48-62Hz
DALI power supply	250mA maximum
SDIM channels	1-16
Product Dimensions	90mm x 70mm x 58mm

Lon Gateway (430)

Allows DIGIDIM products to be controlled and monitored by a LonWorks BMS.

DALI power	supplied via DALI (2mA max)
LON power	supplied via the LON bus (1 LPUL maximum)
Cable length	300m (maximum)
Product Dimensions	90mm x 35mm x 58mm

Allows DIGIDIM products to be controlled and monitored by a LonWorks BMS.

250mA Power Supply (402)

A DIN rail mounted power supply for DALI control systems.

Supply Voltage	90-264 VAC
Supply Frequency	48-62 Hz
DALI Power Supplied	250mA
Product Dimensions	90mm x 35mm x 58mm

Note: If a power supply unit is connected to a system no other source of power may be used.

Power Supply (401)

A ceiling mounted power supply for DALI control systems.

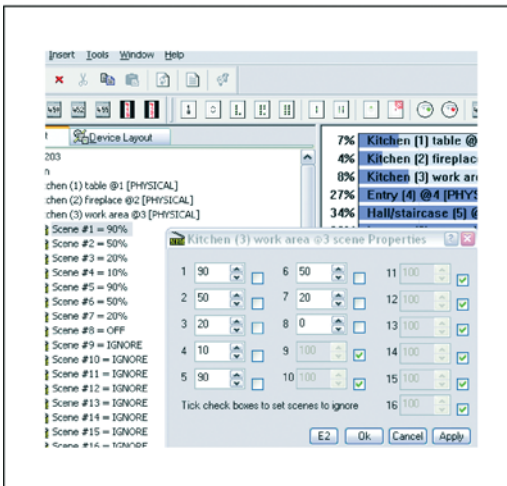|	
Supply Voltage	220-240 VAC
Supply Frequency	50-60 Hz
DALI Power Supplied	250mA (maximum)
Product Dimensions	100mm x 63mm x 51mm

Note: If a power supply unit is connected to a system no other source of power may be used.

RS232 AV Interface(503)

Allows the connection of RS232 devices such as an AV Touch Screen to a DALI system. The interface modules power requirements are derived from the connecting systems.

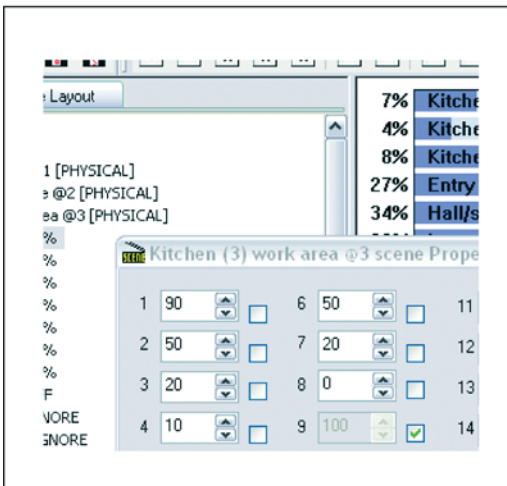|	
Isolation (RS232 & DALI)	3 kV
Byte Format	19,200 Baud
	8 data bits
	(no parity,1stop bit)
DALI power	Supplied via DALI (10 mA)
RS232 power	Supplied via RS232 (3mA).

DIGIDIM Toolbox (502)

The DIGIDIM Toolbox is a Microsoft® Windows based application that provides a simple method of configuring DIGIDIM systems.

Graphical User Interface

Based on the look and feel of Windows Explorer

Devices created with a single click of a button

Configure devices by simple drag and drop operations

On-line Mode

Directly connected to the DIGIDIM system
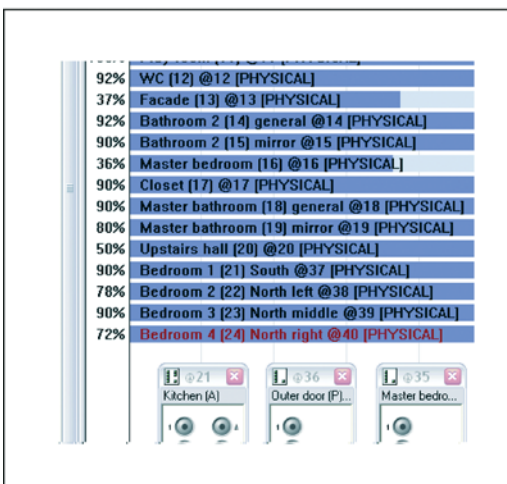
Changes effective immediately

Useful for fine tuning of system

Off-line Mode

Allows simulations of DIGIDIM systems

Using virtual devices system can be configured prior to installation

Design can be simply transferred to real system when built

System Configuration

All devices in the system can be given meaningful names

When on-line Toolbox displays a representation of all devices

Toolbox tracks actual system status in real time

Helvar

System Guidelines

Up to 63 addresses per system

Up to 250mA current per system
10mA / panel
15mA / multi-sensor
2mA required per load interface

Up to 300m total cable length
2 wire 0.5-1.5mm^2 standard mains cable

Each system may be configured with up to 16 groups

Every load within a Digidim system may be programmed with up to 16 scene settings

Multiple Digidim systems may be joined together under Building Management System control

Cable Specification

DALI connections of up to 300m can be made with any 2 wire 0.5 - 1.5 mm^2 mains rated cable.

NOTE: The Digidim panels must be earthed as shown in the installation instructions.

(In rare instances where the environment may be electrically noisy, due to adjacent circuits carrying high switching currents, we recommend a 2 wire twisted pair screened and sheathed cable).